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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HEYI, HENOK G

ART UNIT	PAPER NUMBER
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2609

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/779,437	Applicant(s) CARSON, DOUGLAS M.	
	Examiner Henok G. Heyi	Art Unit 2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4, 5, 10-12 and 20 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-9 and 13-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 6-9, 15-18 are rejected under 35 U.S.C 102 (e) as being anticipated by Lee et al. (US Pub. No.: 2003/0223344 A1).

Re claim 1, Lee discloses an apparatus comprising a stamper (a father stamper, para [0033] and see fig. 4C) configured to form pits and lands (land areas and pit areas protrude, [0032] to [0037]) in a non-first layer in a multi-layer optical disc, said pits and lands defining data including an identifier tag which identifies the stamper as corresponding to a second stamper (a mother stamper, para [0034] and see fig. 4D) configured to form pits and lands in a first layer of the disc.

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Re claim 2, Lee further discloses the apparatus of claim 1, wherein the pits and lands in the first layer of the disc define data (groove tracks 3 and land tracks 5 are alternatively formed in the lead-in area 10 and the lead-out area 15...further, user data is recorded in the form of pits 18 when the disc is manufactured, para [0026]) including a table of contents (TOC) for said disc, and wherein the identifier tag comprises at least a portion of the TOC (a high-density reproduction-only optical disc according to the present invention includes a lead-in area 10, a user data area 13, and a lead-out area 15, para [0026]).

Re claim 3, Lee discloses the apparatus of claim 2, wherein the identifier tag comprises a complete copy of the TOC (a high-density reproduction-only optical disc according to the present invention includes a lead-in area 10, a user data area 13, and a lead-out area 15, para [0026]).

Re claim 4, Lee discloses the apparatus of claim 1, wherein the identifier tag comprises a reference value associated with the contents of the disc. (The reproduction-only data such as the disc related information is recorded by high frequency groove wobbles 8 formed as waves on both sidewalls of each of the groove tracks 3 and/or the land tracks 5., para [0026]).

Re claim 6, Lee teaches an injection molded article (plurality of substrates are injected molded) formed by the stamper (mother stamper) of claim 1(see para [0032] –[0034]).

Re claim 7, Lee teaches a multi-layer optical disc formed from the injection-molded article (plurality of substrates are injected molded) of claim 6 (see para [0032] –[0034]).

Re claim 8, Lee further teaches a multi-layer optical disc (see fig. 7, 53), comprising: a first which stores a first set of user data and a table of contents (TOC) for the disc (includes a lead-in area 10, a user data area 13, and a lead-out area 15, see fig. 2A); and a second layer (see fig. 7, 53) aligned adjacent the first layer which stores a second set of user data and an identifier tag which identifies the second layer as corresponding to the first layer (see fig. 7, 53). Applicant's submitted drawing (fig. 2) and specification about TOC and identifier tag that is claimed here on para [0033] to [0036] is anticipated by Lee et al. as it is seen on para [0026].

Re claim 9, Lee discloses the multi-layer optical disc of claim 8 (see fig. 7, 53), wherein the identifier tag comprises at least a portion of the TOC (a high-density reproduction-only optical disc according to the present invention includes a lead-in area 10, a user data area 13, and a lead-out area 15, para [0026]).

Re claim 13, Lee further discloses the multi-layer optical disc of claim 8, further comprising a third layer (multi-layer optical disc having a plurality of information surfaces, see para [0031]) which stores a third set of user data and a second identifier tag (a high-density reproduction-only optical disc according to the present invention includes a lead-in area 10, a user data area 13, and a lead-out area 15, para [0026]) which identifies the third layer as corresponding to the first and second layers.

Re claim 14, Lee teaches the multi-layer optical disc of claim 8, wherein the first and second layers are configured such that, during a readback operation, a light beam from an optical pickup (the system includes a pickup unit 45) impinges upon the first layer to read the first set of data and then passes through the first layer to impinge upon the second layer to read the second set of data (laser beam passing through the beam splitter 44 on a disc 53, see fig 7).

Re claim 15, Lee further teaches a stamper (a mother stamper, para [0034] and see fig. 4D) used to form the second layer in accordance with claim 8

Re claim 16, Lee discloses a method, comprising: forming a first layer (see fig. 7, 53) for a multi-layer optical disc which stores a first set of user data and a table of contents (TOC) for the disc (includes a lead-in area 10, a user data area 13, and a lead-out area 15, see fig. 2A); and forming a second layer (see fig. 7, 53) for the disc configured to be aligned adjacent the first layer and which stores a second set of user data and an identifier tag which identifies the second layer as corresponding to the first layer (see fig. 7, 53). Applicant's submitted drawing (fig. 2) and specification about TOC and identifier tag that is claimed here on para [0033] to [0036] is anticipated by Lee et al. as it is seen on para [0026].

Re claim 17, Lee further discloses the method of claim 16, further comprising attaching the second layer to the first layer (multi-layer optical disc having a plurality of information surfaces, see para [0031]).

Re claim 18, Lee discloses the method of claim 16, further comprising forming a third layer (multi-layer optical disc having a plurality of information surfaces, see para [0031]) for the disc configured to be aligned adjacent the second layer which stores a third set of user data and a second identifier tag (a high-density reproduction-only optical disc according to the present invention includes a lead-in area 10, a user data area 13, and a lead-out area 15, para [0026]) which identifies the third layer as corresponding to the first and second layers.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (Lee herein after) US 2003/0223344 A1 as applied to claim 8 above, and further in view of Kadowaki et al. (Kadowaki herein after) US 2004/0001414 A1.

Re claim 13, Lee teaches about a double layer disc(see fig 7) with a lead-in area, a user data area and a lead-out area that comprises both data and identification (see para [0026]) but does not explicitly teach about three layers. However, Kadowaki teaches about plurality of information recording layers each including information region and control data region (see para [0015]) Therefore, the combined teaching of Lee and Kadowaki would have rendered obvious to have a third layer which has user data and identifier tag. The motivation for combining the two prior arts as taught by Miyagawa is the capacity increase of storage in multi-layer optical discs and the need to use identifier tags to differentiate between different layers.

Claims 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (Lee herein after) US 2003/0223344 A1 as applied to claim 8 above, and further in view of Miyagawa et al. (Miyagawa herein after) US 2004/0264339 A1.

Re claim 14, Lee teaches about incidence of reproduction laser beam (see para [0036]) but doesn't teach about the laser passing through a first layer and impinge upon a second layer. However, Miyagawa teaches how the laser beam passes through consecutive layers (see fig. 9,10 and para [0070]). Therefore, the combined teaching of Lee and Miyagawa would have rendered obvious for the laser beam to pass through different layers during readback operation. The motivation for combining the two prior arts as taught by Miyagawa is so that the record learning is performed optimally.

Re claim 19, Lee teaches about using of identifier tags but doesn't specifically teach about testing the second layer apart from the first. However, Miyagawa teaches about obtaining identification information for each recording layer (para [0047] to [0056]). Therefore, the combined teaching of Lee and Miyagawa would have rendered obvious using identifier tag to test the second layer apart from the first layer. The motivation for combining the two prior arts as taught by Miyagawa is to keep the quality of the reproduction signal of the control data.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henok G. Heyi whose telephone number is (571) 272-1816. The examiner can normally be reached on Monday to Friday 7:30 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HGH

A handwritten signature in black ink, appearing to read 'Kieu-Oanh Bui', with a long horizontal line extending to the right.

**KIEU-OANH BUI
PRIMARY EXAMINER**

